

AMENDMENT TO THE CLAIMS:

The following claim set replaces all prior versions, and listings, of claims in the application:

1. (currently amended) A method of generating a flame in a combustion zone of a rotary kiln comprising:
 - (a) providing a rotary kiln having a kiln wall which defines a combustion zone within the rotary kiln, and by means of a burner which comprises comprising at least a burner tube having a front end located outside the kiln wall of the rotary kiln and extending therefrom through the kiln wall into the rotary kiln from outside of the kiln to a discharge end located inside the rotary kiln within the combustion zone thereof, and a burner lance and means for introducing fuel into the burner tube for combustion with primary air to generate a flame at the discharge end of the burner tube within the combustion zone of the rotary kiln; and means for
 - (b) generating a leading primary air via the burner tube into the combustion zone of the kiln, characterized in that flue gas generated in by a gas turbine located outside the kiln wall;
 - (c) directing the flue gas generated by the gas turbine to connected to the burner tube so that the flue gas is used as primary air for combustion of the fuel introduced into the burner tube by the burner lance; and
 - (d) combusting the fuel using the flue gas as primary air to generate a flame at the discharge end of the burner tube in the combustion zone of the rotary kiln.
2. (currently amended) A method according to claim 1, wherein characterized in that the temperature of the flue gas generated by [[of]] the turbine [[is]] has a temperature of 400-800 °C.

3. (currently amended) A method according to claim 1, which comprises feeding characterized in that the fuel is fed by the burner lance into the discharge end of the burner tube.
4. (currently amended) A method according to claim 1, which comprises feeding characterized in that the fuel is fed by the burner lance into the front end of the burner tube, and mixing the fuel wherein it is mixed with the flue gas as primary air generated by entering from the gas turbine.
5. (currently amended) A method according to claim 1, which comprises feeding the flue gas as characterized in that the primary air generated by [[from]] the gas turbine [[is fed]] via a connecting tube tangentially disposed relative to the burner tube so that the flue gas as primary air is fed into the burner tube tangentially, and wherein the method further comprises feeding the fuel and that fuel is fed into the connecting tube so as to establish, whereby a cyclone-shaped intermediate burner is formed in the burner tube.
6. (currently amended) A rotary kiln comprising:
a kiln wall which defines a combustion zone within the rotary kiln, and
a burner for generating a flame in [[a]] the combustion zone of [[a]] the rotary kiln,
wherein the [[said]] burner comprises, comprising
 - (i) at least a burner tube [[(4)]] having a front end located outside the kiln wall of the rotary kiln and extending therefrom through the kiln wall into the rotary kiln from outside the kiln to a discharge end located inside the rotary kiln within the combustion zone thereof; and means (3)
 - (ii) a burner lance for feeding fuel into the burner tube for combustion with primary air to generate a flame at the discharge end of the burner tube within and means for leading primary air via the burner

tube into the combustion zone of the rotary kiln; characterized in that the burner is connected to

(iii) a gas turbine located outside the kiln wall of the rotary kiln for generating a flue gas in response to combustion of a fuel therein; and (1,2) via

(iv) a connecting tube which connects the gas turbine to the burner tube to direct the (7) for leading flue gas generated by [[in]] the gas turbine into the burner tube for use as primary air for combustion of the fuel introduced to the burner tube and thereby generate a flame at the discharge end of the burner tube in the combustion zone of the rotary kiln.

7. (currently amended) A rotary kiln burner according to claim 6, wherein characterized in that the connecting tube [[(7)]] is inclined in relation to the burner tube.

8. (currently amended) A rotary kiln burner according to claim 6, wherein characterized in that the connecting tube [[(7)]] is positioned axially in relation to the burner tube.

9. (currently amended) A rotary kiln burner according to claim 6, wherein characterized in that the connecting tube [[(7)]] is tangential in relation to the burner tube.

10. (currently amended) A rotary kiln burner according to claim 6, wherein characterized in that the burner unit further comprises means for introducing fuel into the connecting tube for increasing the temperature in the burner tube.

11. (currently amended) A rotary kiln burner according to claim 6, wherein characterized in that the burner tube [[(4)]], the connecting tube [[(7)]] and the

gas turbine [(1,2, 11))] are constructed as a unit capable of adjustable positioning, the position of which in relation to the rotary kiln is adjustable.

12. (currently amended) A rotary kiln burner according to claim 11, wherein the characterized in that said unit further comprises a cooling air fan [(6)].
13. (new) A rotary kiln according to claim 6, wherein the burner lance is concentrically positioned within the burner tube.
14. (new) A rotary kiln according to claim 13, wherein the burner lance feeds fuel into the burner tube at the discharge end thereof.
15. (new) A rotary kiln according to claim 13, wherein the burner lance feeds fuel into the burner tube at the front end thereof for mixing with the flue gas as primary air directed to the burner tube from the gas turbine by the connecting tube.
16. (new) A method according to claim 1, which comprises concentrically positioning the burner lance within the burner tube.
17. (new) A method according to claim 16, which comprises feeding fuel into the burner tube at the discharge end thereof.
18. (new) A method according to claim 16, which comprises feeding fuel into the burner tube at the front end thereof and mixing the fuel with fuel gas as primary air generated by the gas turbine.